

ABSTRACT OF THE DISCLOSURE

A method for the post-etch cleaning of multi-level, damascene structures which minimizes, or substantially prevents, localized corrosion of underlying copper metallization comprises subjecting an intermediate structure in the fabrication of a multi-level, damascene structure, which structure includes an underlying copper metallization layer and an opening etched therein which exposes at least a portion of the underlying copper metallization layer, to an aqueous or acidic wash solution, in an environment substantially shielded from ambient light, to substantially remove any post-etch residues which may be present on the structure. In one embodiment, the aqueous or acidic wash solution has a nonzero static etch rate when applied to both the copper and conventional dielectric materials, *e.g.*, silicon dioxide.